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Dong Hae Engineering Co., Ltd. is in charge of various projects including apartment building and plant construction during the 25 years of working in the field of HVAC. We hold the best engineers who have high ability and various experiences in each project. We are doing continuous investment on R&D for new technology and product, according to the needs of various construction enterprises.

날개형상 (Impeller Shape)
- 날개 길이가 짧고 폭이 넓다.
- 날개의 끝이 최적화방향으로 곡선을 이루어고 있다.
- 날개 매수가 더 가깝게 보다 많다.
- The length of blades is short and broad.
- The tip of blades curves in rotation direction.
- A lot of blades than other product

제품특징 (Product Features)
- 타 기종에 비해 설계만의 적길, 대용량, 저동작이다.
- 저속운전으로 저소음 및 낮은 진동으로 운전상태가 정상적이다.
- 공장 변동없이 원활한 변화하는 적이다.
- Vane Damper의 설치로 공장 및 정밀 조정이 용이해서, Position에 따라 효율적인 에너지 관리가 용이하다.
- 기존방식 정답 이하 운전시 진동이 극히 상승한다.
- Compared with other centrifugal fans, Installation area is small and large air, low pressure.
- Driving at low speed, not generating unpleasant noise, vibration, and offering the optimum operation.
- The change in the wind pressure by the airflow fluctuation is small.
- It adjusts easily air and pressure as installation of Vane damper and manages easily efficient of energy by position.
- Power rises suddenly at the time of driving below standard pressure.

AMCA Seal 정보 (AMCA Seal Information)
국제 공기 유동 및 제어 협회(AMCA)는 세계 공조 시스템 설비 제조업체의 비영리 협회입니다. 또한, 협회는 산업용, 상업용, 주거용 시장의 편, 루버, 케피, 에어 커튼, 공기 측정 장소, 응량 감쇠기 등의 다른 공조 시스템 구성요소도 포함합니다.
협회의 목표는 공기 유동 및 제어 산업의 변동과 공공의 이익과 성장을 촉진하는 것입니다. AMCA는 공조산업을 위해 자체 규정을 제시합니다. 편, 케피, 루버, 규격 등은 AMCA 국제 인증의 의무성을 인식하고 있을 필요가 있습니다.
The Air Movement and Control Association (AMCA) International, Inc. is a not-for-profit international association of the world's manufacturers of related air system equipment—primarily, but not limited to: fans, louvers, dampers, air curtains, airflow measurement stations, acoustic attenuators, and other air system components for the industrial, commercial and residential markets.

The association's mission is to promote the health and growth of the air movement and control industry consistent with the interest of the public. AMCA International is a valuable resource and a strong means of self regulation for our industry. People who buy and specify fans, dampers, and louvers need to be aware of the value of the AMCA International seal.

- Ventilator certifies that the Centrifugal Fans shown here in is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.
- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include transmission losses.

### 주요용도 (Main application)

- 지하주차장 급, 배기, 기계실, 발전기실, 전기실 급배기
- 소방 제연용 급배기, 정화조, 주방 급배기
- 냉난방 공기 조화기 내장용, 지하철 환기용
- 기타 국소부위 배기
- Underground parking supply, exhaust fan, Machine room, generator room, electricity room supply, exhaust fan,
- Firefighting smoke control supply, exhaust fan,
- The inside use of Air conditioning and heating A.H.U, subway ventilation
- The diverse local exhaust fan

### Fan 구조 (Fan Structure)
How to read Air Performance Data-Typical example

Model Reference

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<th>Model Reference</th>
<th>BSI 560 D</th>
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<tr>
<td>Double Suction</td>
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<td>Impeller Dia (mm)</td>
<td>Fan Speed, Total Efficiency, Shaft Power, Sound</td>
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</tbody>
</table>

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<tr>
<th>Air Volume</th>
<th>Static Pressure</th>
<th>Fan Speed</th>
<th>Total Efficiency</th>
<th>Shaft Power</th>
<th>Sound</th>
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</thead>
<tbody>
<tr>
<td>428 CMM</td>
<td>48 mmAq</td>
<td>730 rpm</td>
<td>47%</td>
<td>7.9 kW</td>
<td>97 dB</td>
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</table>

Performance Curve (Air Volume and Static Pressure Curve on Fan Speed)

Total Efficiency Curve (Efficiency Curve on Air Volume and Static Pressure)

Sound (Inlet Sound Power Level: LwiA [dB])

*An intersecting point of Performance Curve and Efficiency Curve

Shaft Power Curve (Shaft Power Curve on Air Volume and Static Pressure)

팬 회전과 토출방향 (Fan Rotation and Discharge)

팬의 회전과 토출방향은 AMCA 표준 99-2406-03에 따릅니다.

The rotation and discharge of the fan is in accordance with AMCA standard 99-2406-03.

The direction of rotation is determined from the drive side of the fan:

**CW - clockwise rotation**

**CCW - center-clockwise rotation**

모터 위치 (Motor Position)

The position of the motor for belt drive centrifugal fan is in accordance with AMCA standard 99-2407-03.

Location of motor is determined by facing the drive side of fan and designating the positions by letters W, X, Y, or Z.
Performance Data BSI 315 D

Wheel Dia : 315mm  $\rho = 1.2 \text{ kg/m}^3$

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances/accessories.
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BSI 355 D

Wheel Dia : 355mm  $\rho = 1.2 \text{ kg/m}^3$

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances/accessories.
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BSI 400 D

Wheel Dia : 400mm
ρ = 1.2 kg/m³

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

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Performance Data BSI 450 D

Wheel Dia : 450mm
ρ = 1.2 kg/m³

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances(accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BSI 500 D

Wheel Dia : 500mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances/accessories.
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwaA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

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Performance Data BSI 560 D

Wheel Dia : 560mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances/accessories.
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwaA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data **BSI 630 D**

Wheel Dia: 630mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data **BSI 710 D**

Wheel Dia: 710mm  \( \rho = 1.2 \text{ kg/m}^3 \)

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
**Performance Data BSI 800 D**

Wheel Dia : 800mm  
ρ = 1.2 kg/m³

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

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**Performance Data BSI 900 D**

Wheel Dia : 900mm  
ρ = 1.2 kg/m³

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data **BSI 1000 D**

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

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Performance Data **BSI 1120 D**

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BSI 1250 D

Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power rating kW does not include transmission losses.

The A-weighted sound ratings shown have been calculated per AMCA standard 301.

Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Performance Data BSI 1400 D

Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power rating kW does not include transmission losses.

The A-weighted sound ratings shown have been calculated per AMCA standard 301.

Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data BSI 1600 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

Wheel Dia : 1600mm
ρ = 1.2 kg/m³

Performance Data BSI 1800 D

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
Performance Data **BSI 2000 D**

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.

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Performance Data **BSI 2240 D**

- Performance certified is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- Power rating kW does not include transmission losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301.
- Values shown are for inlet LwiA sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.
## OVERALL DIMENSION - BSI “D” SERIES

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<tr>
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<th>BSI 315D</th>
<th>BSI 355D</th>
<th>BSI 400D</th>
<th>BSI 450D</th>
<th>BSI 500D</th>
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